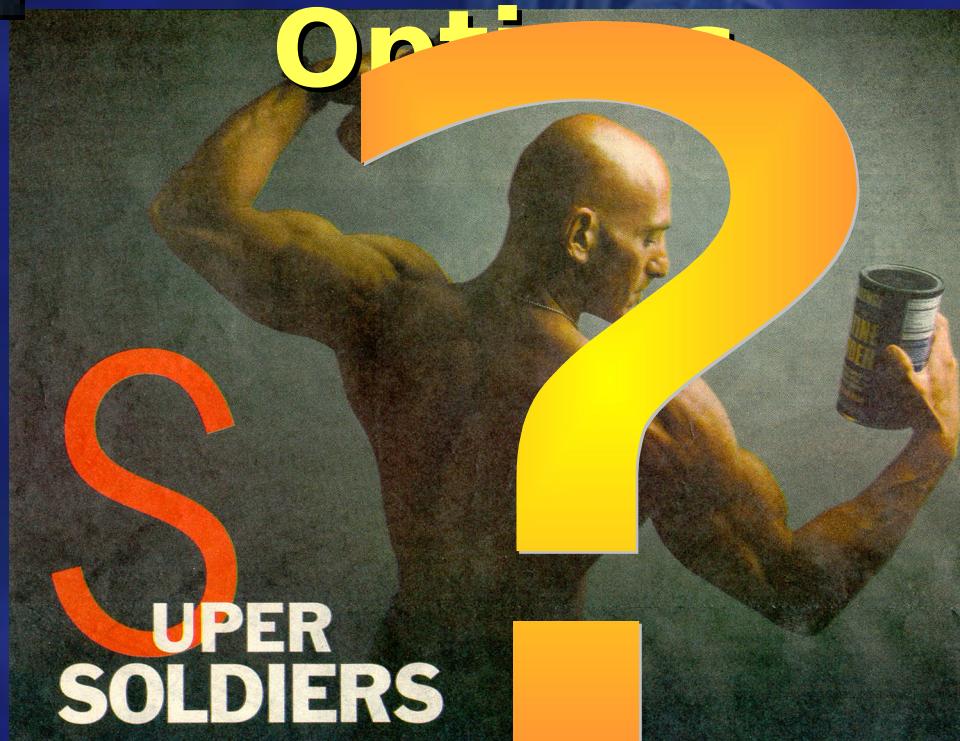


Use
“Supplement
Sense” to
Consider Your
Options

>> Name<<
>>Title<<
>>Organization<<



Purpose

- Learn to make dietary supplement choices based on sound, scientific research instead of marketing claims.
- Learn to use food as the primary way to achieve your nutrition and fitness goals.

Outline

- **What is a Dietary Supplement?**
- **Use of Dietary Supplements**
- **Possible Dangers of Supplements**
- **Using Food for Power Performance**
- **Supplement Sense**

A Dietary Supplement is...

a tablet, capsule, powder, soft-gel, or liquid product that contains at least one of the following:



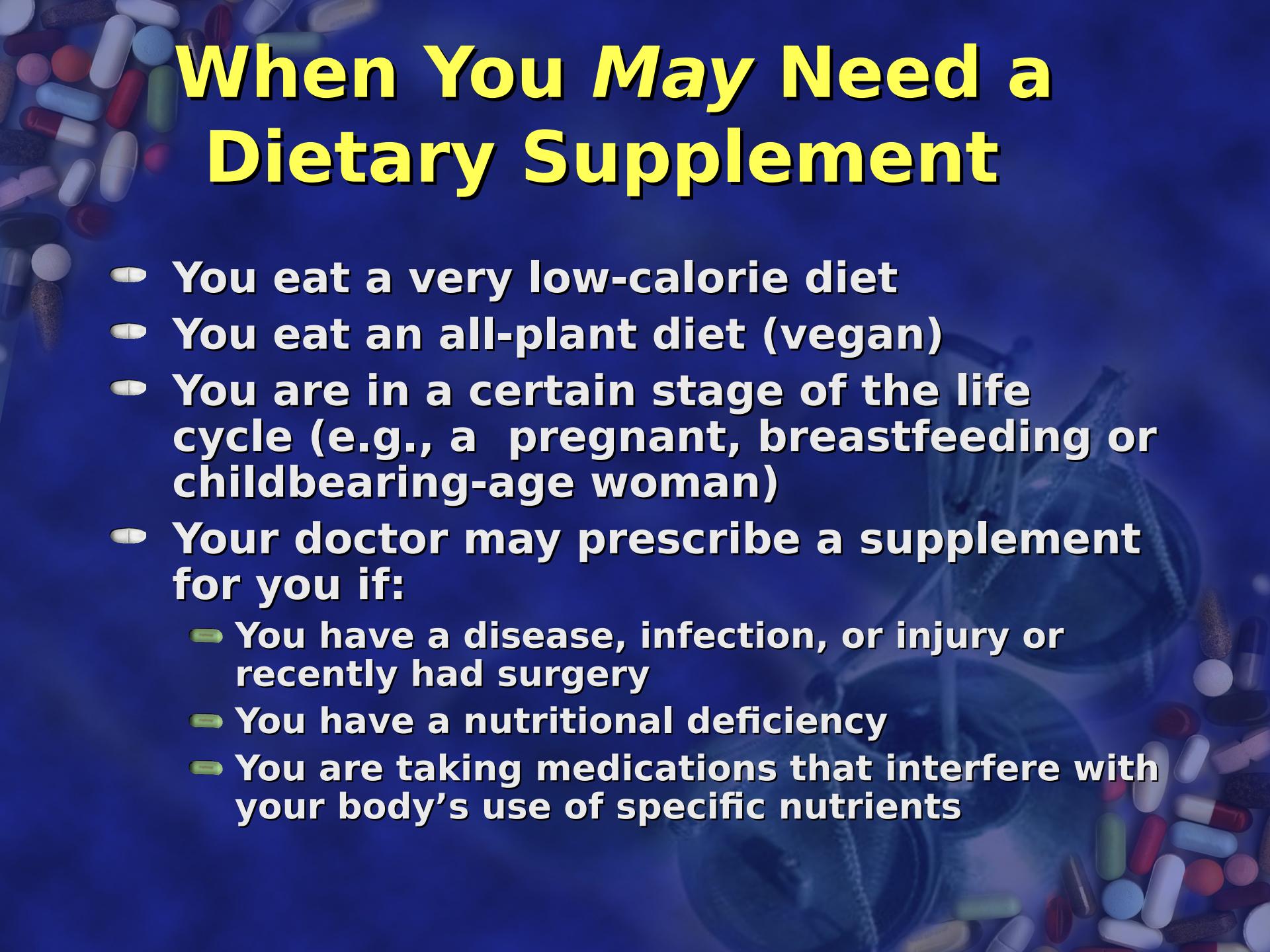
- Vitamin
- Mineral
- Herb or botanical
- Amino acid
- A concentrate, metabolite, constituent, or extract of any of the above

The Truth about the Laws

- Dietary Supplement Health and Education Act (DSHEA): 1994
 - Dietary supplements are NOT regulated or tested like drugs
 - Manufacturers are free to market supplements without proof of safety or efficacy
 - No FDA approval needed to sell
 - No established dosage guidelines
 - No purity restrictions
 - Some supplements have been shown to be contaminated with street drugs!

Do **YOU** Need a Dietary Supplement?





When You *May* Need a Dietary Supplement

- You eat a very low-calorie diet
- You eat an all-plant diet (vegan)
- You are in a certain stage of the life cycle (e.g., a pregnant, breastfeeding or childbearing-age woman)
- Your doctor may prescribe a supplement for you if:
 - You have a disease, infection, or injury or recently had surgery
 - You have a nutritional deficiency
 - You are taking medications that interfere with your body's use of specific nutrients

Promises, Promises

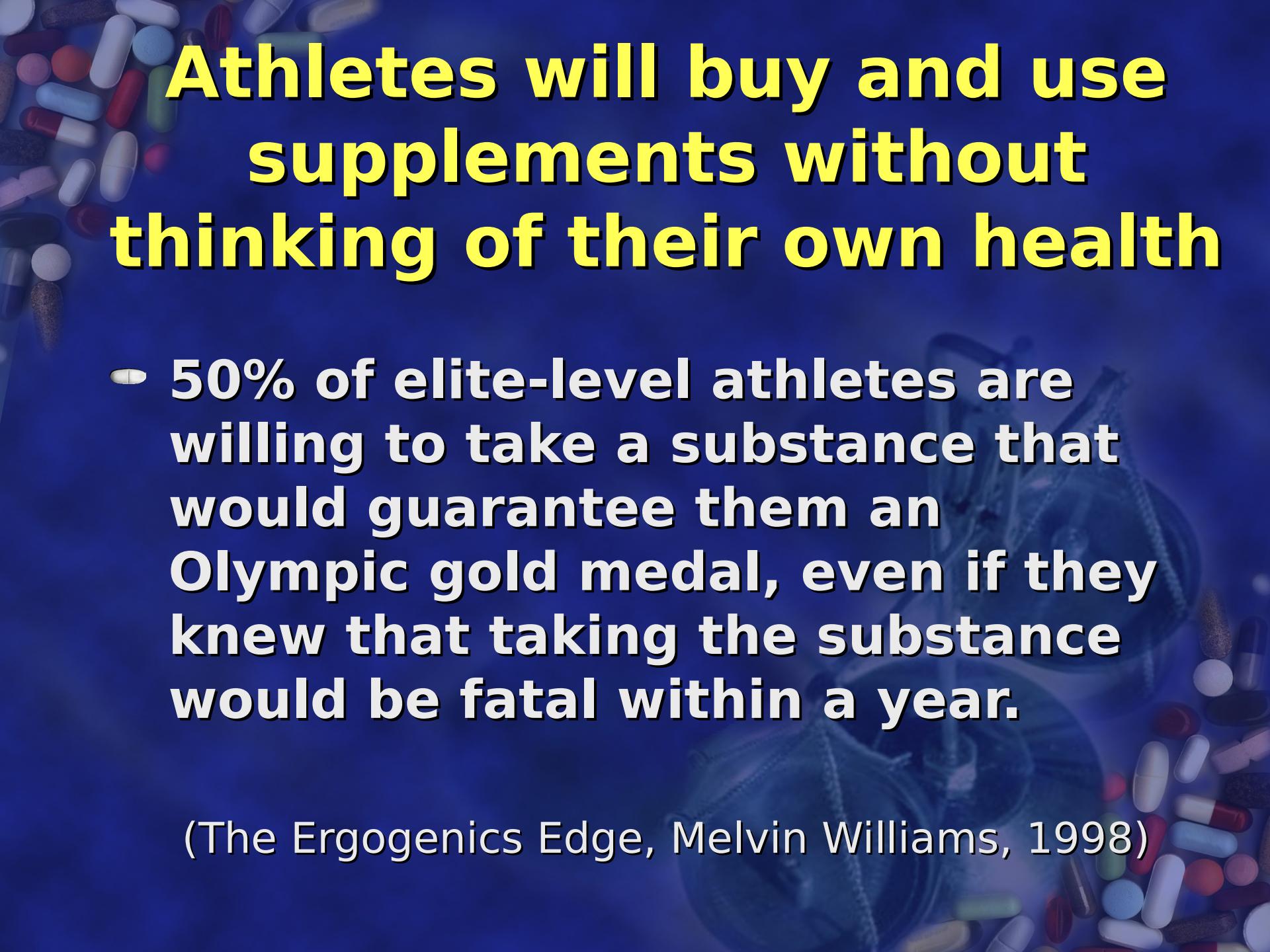
- “Naturally speed up metabolism” and “Burn fat” (Weight Loss Aids)
- “Builds muscle mass” (Ergogenic Aids)
- “Delays fatigue” and “Increases energy” (Performance Enhancers)
- “Prevents disease” (Vitamins, Minerals, and Herbs)

Why do Soldiers consume dietary supplements?

- Promote General Health
- Performance Enhancement
- Prevent Illness



Source: MAJ S Corum, MBA, RD: Dietary Supplement Consumption in Active Duty Enlisted European Population, Feb-Nov 2003. Note: Preliminary Data Analysis



Athletes will buy and use supplements without thinking of their own health

- 50% of elite-level athletes are willing to take a substance that would guarantee them an Olympic gold medal, even if they knew that taking the substance would be fatal within a year.

(The Ergogenics Edge, Melvin Williams, 1998)

Top Vitamins & Minerals Consumed in Military

- Multivitamin
- Vitamin C
- Calcium
- Vitamin E
- Iron



Source: MAJ S Corum, MBA, RD: Dietary Supplement Consumption in Active Duty Enlisted European Population, Feb-Nov 2003. Note: Preliminary Data Analysis

Top Herbal Supplements Consumed in Military

- Ginseng
- Garlic
- Ginkgo biloba
- Echinacea
- Guarana

Source: MAJ S Corum, MBA, RD: Dietary Supplement Consumption in Active Duty Enlisted European Population, Feb-Nov 2003. Note: Preliminary Data Analysis

Top Supplements Consumed in Military in Effort to Enhance Performance

- Among Men
 - Creatine
 - Ephedra
 - Amino Acids
 - Glucosamine
 - Androstenedione
- Among Women
 - Creatine
 - Amino Acids
 - Ephedra
 - Glucosamine
 - HMB

Source: MAJ S Corum, MBA, RD: Dietary Supplement Consumption in Active Duty Enlisted European Population, Feb-Nov 2003. Note: Preliminary Data Analysis

Possible Side Effects of Supplement Use

- Dehydration
- Heat-Related Injuries
- Nervousness and Dizziness
- Changes in Blood Pressure and Heart Rate
- Heart Attack

Possible Side Effects of Supplement Use (con't.)

- Strokes
- Seizures
- Psychosis
- Death
- Interaction with medications
- Positive drug tests due to contaminated supplement

Frequency of Adverse Effects in Military Supplement Users

Dehydration	40%
Palpitations	24%
Abdominal Pain	15%
Dizziness or Confusion	13%
Numbness of Extremities	2%
Tremors	2%

Source: MAJ S Corum, MBA, RD: Dietary Supplement Consumption in Active Duty Enlisted European Population, Feb-Nov 2003. Note: Preliminary Data Analysis

Ephedrine Alkaloids

- Also called
 - Ephedra
 - Ma Huang
- Health risks may include:
 - Disturbed Sleep
 - Irregular Heartbeat
 - Seizures
 - High Blood Pressure
 - Stroke

What about “Ephedra-Free?”

- Has other stimulants:
 - Bitter Orange (Synephrine)
 - Cola nut
 - Guarana
 - Caffeine
- Marketed as “safer” than ephedra products...
- However, synephrine is virtually identical in action to ephedrine-containing products

In the News!



??

**Supplements
cannot
replace
meals!**

MULTI-
VITAMIN/
MINERAL
COMPLEX

ANTI-
OXIDANTS*
C & E
LYCOPENE
BETA-CAROTENE
ALA Q₁₀
N-ACETYLCYSTEINE

CREATINE

GLUTAMINE

PROTEIN SUPPLEMENTS
WHEY • CASEIN • SOY

Eat a Variety of Nutritious Foods



**Fats, Oils & Sweets
USE SPARINGLY**

KEY

- Fat (naturally occurring and added)
- Sugars (added)

These symbols show fats and added sugars in foods.

**Milk, Yogurt &
Cheese Group**

2-3 SERVINGS



**Meat, Poultry, Fish, Dry Beans,
Eggs & Nuts Group**

2-3 SERVINGS



Vegetable Group

3-5 SERVINGS



Fruit Group

2-4 SERVINGS



**Bread, Cereal,
Rice & Pasta
Group**

**6-11
SERVINGS**

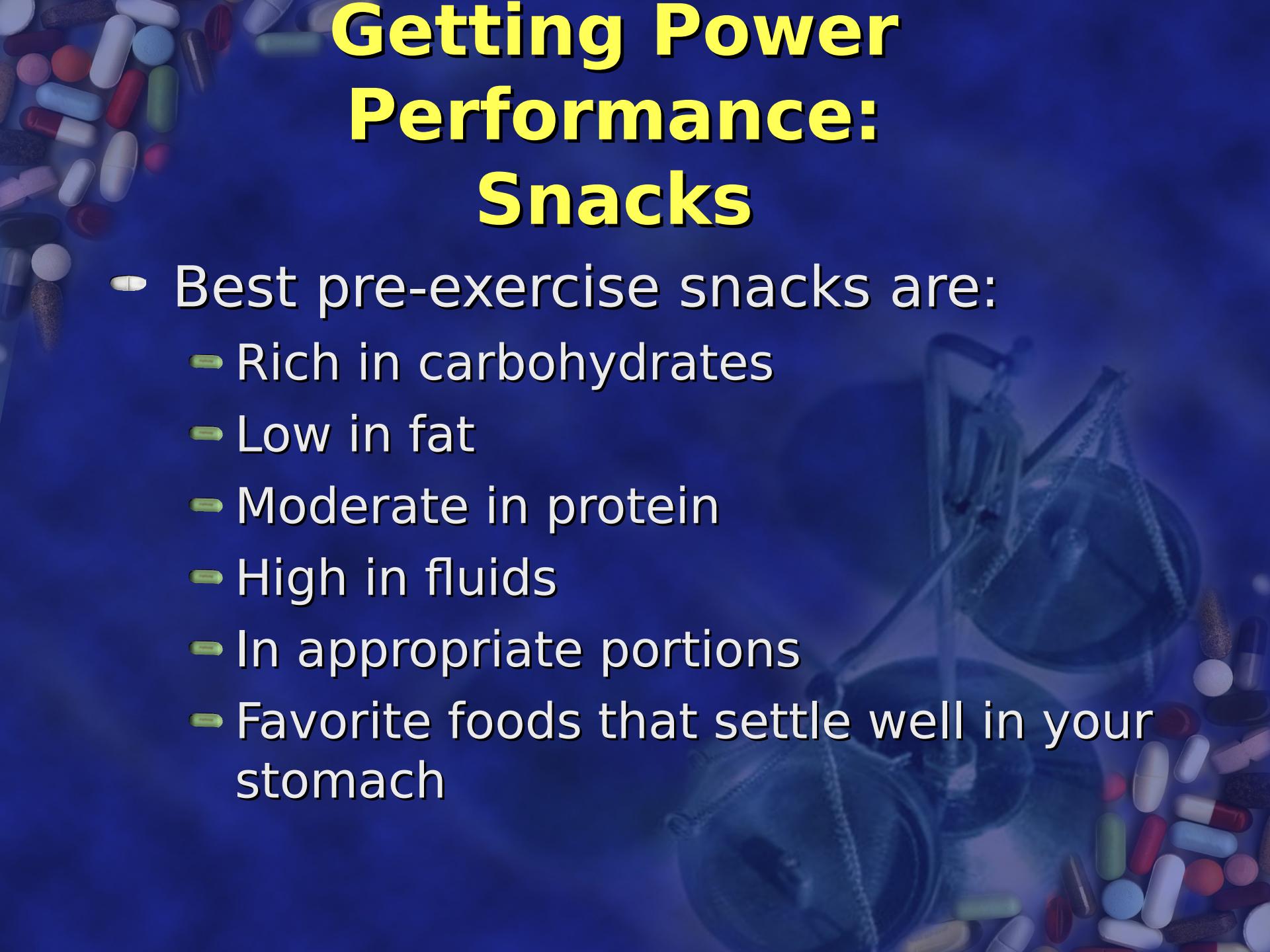


Getting Power Performance

- Talk to a registered dietitian
- Eat meals and snacks before and after performance to refuel your muscles
- Use whole foods: fruits, vegetables, starches, and dairy foods to fuel your body

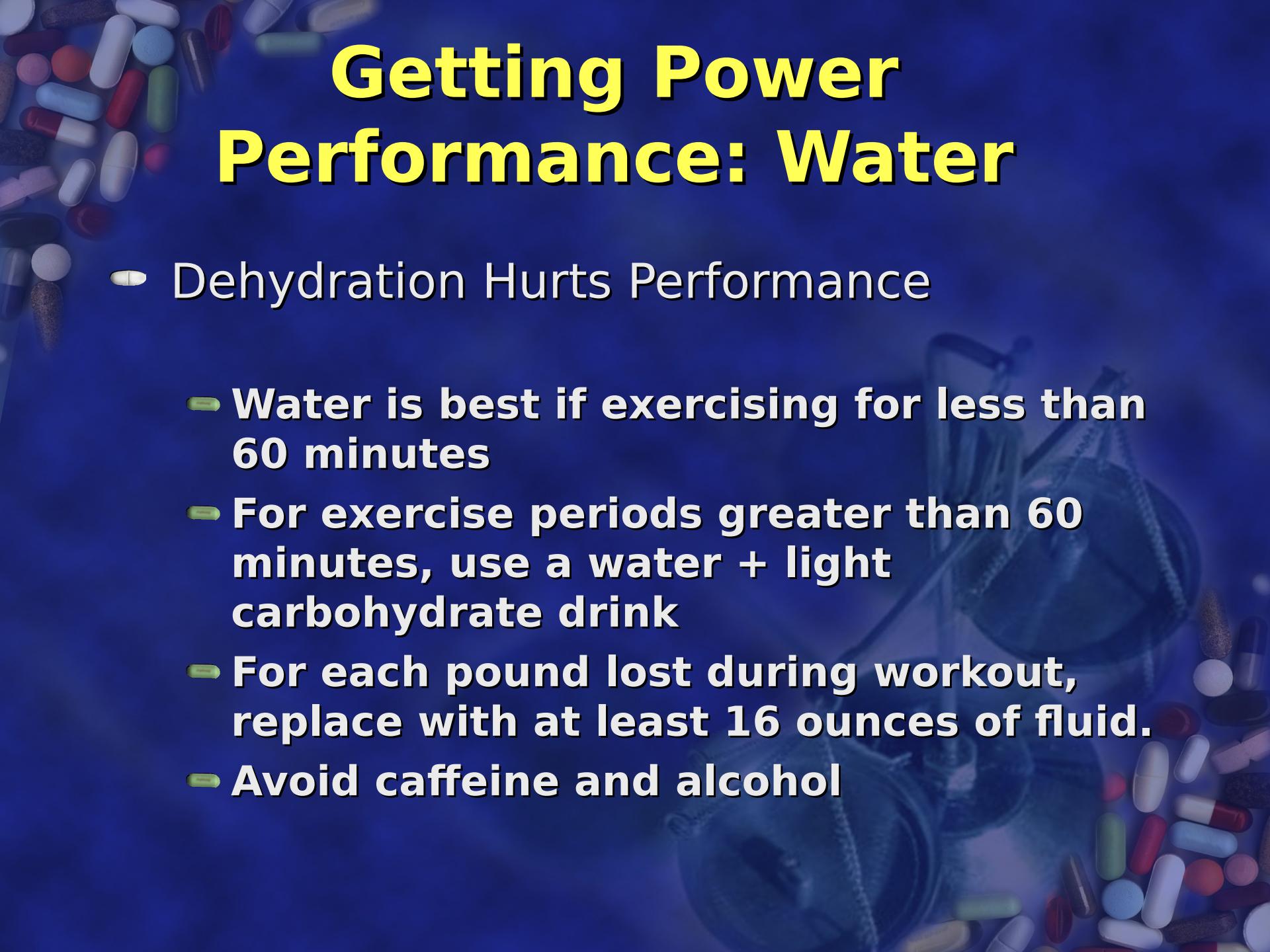
Getting Power Performance

- Carbohydrates are the best source of energy
- Target sports diet = 60% carbohydrate
- To increase muscle, focus on extra strength training with *adequate* protein
- Research shows athletes do NOT need more vitamins/minerals than non-athletes.



Getting Power Performance: Snacks

- Best pre-exercise snacks are:
 - Rich in carbohydrates
 - Low in fat
 - Moderate in protein
 - High in fluids
 - In appropriate portions
 - Favorite foods that settle well in your stomach



Getting Power Performance: Water

- Dehydration Hurts Performance
- **Water is best if exercising for less than 60 minutes**
- **For exercise periods greater than 60 minutes, use a water + light carbohydrate drink**
- **For each pound lost during workout, replace with at least 16 ounces of fluid.**
- **Avoid caffeine and alcohol**

Choose Food Instead of Supplements

Food

Fun

Offers variety

Doesn't have to be expensive

Contains other healthful substances

Safe

Supplements

Boring

Lacks variety

Can cost a lot of money

Doesn't contain other health benefits

Can be dangerous to your health

Is this a Credible Source?

“...The initial blood pressure rise is small, mortality statistics are tiny for ephedrine with or without caffeine,...”

Source: *Muscle & Fitness Online*

Guidelines for Using Supplements

- Get objective information from a professional such as a Registered Dietitian, Nurse, or Doctor
- Obtain your health care provider's approval
- Read the label carefully
- Do not exceed dosage recommendations
- Discontinue use if you experience adverse side effects and report these to the FDA

Guidelines for Using Supplements (con't.)

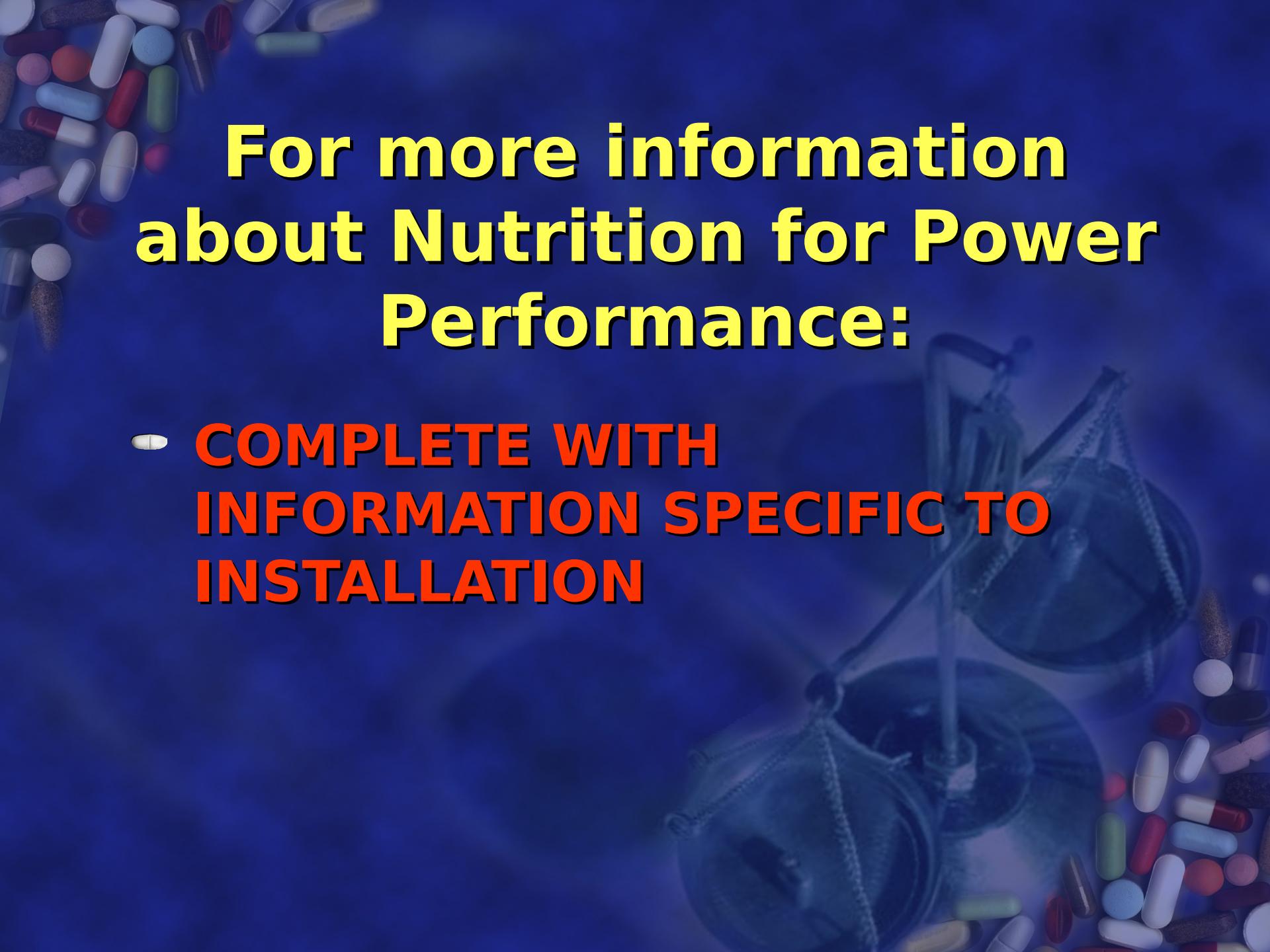
- Purchase supplements from reliable producers
- Be aware of sensational claims
- Do not take supplements if you are pregnant, breastfeeding, or taking prescription medications

Other Reliable Resources

- **Uniformed Services University of the Health Sciences pamphlet on nutritional supplements**
 - <http://www.usuhs.mil/mim/ergopam.pdf>
- **U. S. Army Center for Health Promotion and Preventive Medicine**
 - <http://chppm-www.apgea.army.mil/dhpw/Wellness/dietary.aspx>
- **FDA Center for Food Safety and Applied Nutrition**
 - <http://www.cfsan.fda.gov>
- **NIH Office of Dietary Supplements**
 - <http://ods.od.nih.gov>

Reliable Resources (cont.)

- **Hooah4Health.com**
- **Navy Environmental Health Center**
 - <http://www-nehc.med.navy.mil/hp/nutrit/index.htm>
- **National Center for Complementary and Alternative Medicine**
 - <http://nccam.nih.gov>
- **Tufts Nutrition Navigator (Critical review of supplement web sites)**
 - <http://www.navigator.tufts.edu/>



**For more information
about Nutrition for Power
Performance:**

- COMPLETE WITH
INFORMATION SPECIFIC TO
INSTALLATION**